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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,373

03/23/2004

Young-Seok Lim

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1829

1609 7590 05/13/2008

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EXAMINER

BOCURE, TESFALDET

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

05/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,373	<b>Applicant(s)</b> LIM, YOUNG-SEOK	
	<b>Examiner</b> Tesfaldet Bocure	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. Claims 1-19 are pending in the Application.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

3. The drawings were received on 2/7/08. These drawings are considered by the Examiner.

#### ***Specification***

4. The disclosure is objected to because of the following informalities: It has been disclosed (see page 16, lines 22-29) with respect to fig. 4 that “---the first and second fingers are assigned for the first node B using the transmit diversity, and the third and fourth fingers are assigned for the second Node B without making use of the transmit diversity, it is preferable that the combiner 420 combines all signals of the first and second antennas from the first and second fingers according to the control of the transmit diversity controller 430, and combines only the signals of the first antennas from the thirds and fourth fingers”. Again, figure 5 has been disclosed in page 19 as assigned to each Node B and the first antennas 502 and 506 are combined by combiner 520 irrespective of the transmit diversity method, and signal of the second antennas 506

and 508 are combined according to the transmit method. Assume there are two Nodes, Node-B1 and Node-B2, each Node-B having the method of transmitting diversity and without diversity respectively, and each of the first Node-B and second Node-B are having the same configuration as shown in figure 5, how would the combiner combine the received with and without diversity form both the Node-Bs? If the first Node-B is about to combine as disclosed in page 19 and with respect to fig. 5 and the second Node-B is transmitting without diversity mode, how would the diversity combiner combines all the signals from the Node-B with diversity and the signals from Node-B without diversity? If the Node-B with diversity method combines all the signals received and combines only signals of the first antennas, how would figure 5 combine the signals of the first antennas from Node-B and all the signals from the antennas of the first Node-B? It is assumed and as disclosed in page 17, lines 9-19 that the 'diversity' is referring to closed-loop and the 'without diversity' to the open-loop. Clarification required.

Appropriate correction is required.

***Allowable Subject Matter***

5. Claims 1-19 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: the claimed subject matter in claims 1-19 is allowable because the arts of record fail to teach or fairly suggest the claimed "Apparatus (claimed method in claim 11) signals transmitted from Node-Bs using transmit diversity method selected on a

Node-B basis in a mobile communication system comprising: transmit diversity controller (430 and 530 in figures 4 and 5 respectively) for determining a transmit diversity method through transmit diversity information received the Node-Bs; combiner for selectively combining (see switches 510 and 512 in figure 5) output signal from the fingers according to the determined transmit diversity method; and transmit diversity processor for demodulating (see 440 and 540) the signals combined by the combiner on the basis of one transmit diversity method selected by the transmit diversity controller; and in combination with each of the claimed limitations in claims 1 and 11.”

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent number 7,136,627 and US patent publication number 2006/0183438 issued to \_\_\_ respectively disclose a transmission system for operating on closed-loop diversity and open-loop diversity methods..

8. This application is in condition for allowance except for the following formal matters:

The objection to the specification indicated above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm’r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (8:00a-5:30p) & Mon.-Fri (8:00a-5:30p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tefaldet Bocure/  
Primary Examiner, Art Unit 2611

/T. B./  
Primary Examiner, Art Unit 2611